

REMARKS/ARGUMENTS

Claims 1-15 were pending in the present application. By virtue of this response, Claims 1, 4, 8, 9 and 10 have been amended, and new Claims 16-20 added. The Abstract is amended per the Examiner's objection to same. Accordingly Claims 1-20 are currently under consideration. Amendment of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented.

All claims stand rejected. Claim 1, 7 and 9 stand rejected under 35 U.S.C. § 102 as anticipated by Sako. Claims 2-6 and 11-15 stand rejected under 35 U.S.C. § 103 as unpatentable over Sako in view of Blixt. Claims 8 and 10 stand rejected under 35 U.S.C. § 103 as unpatentable over Sako in view of Iwasaki.

While some claims have been amended here, this is to improve form and not for reasons of patentability. The amendments are to improve clarity and remove certain terms from the claims. These amendments are not intended to overcome any rejection.

It is respectfully submitted that the Sako reference does not anticipate either of independent Claims 1 or 9. In brief, the present invention is directed to (see page 3, beginning line 10):

These complimentary encoded and decoded schemes provide a method for creating and reading proprietary format DVDs which may not be read or copied by conventional DVD players. The fact that these encoding and decoding schemes result from relatively minor modifications to existing DVD standards allows many standard system components to be used.

Further at page 4, beginning line 13:

For purpose of illustration, a proprietary DVD format derived by modification of primarily the ESMA-267 standard is described below. However it will be understood that similar modifications may be made to ESMA-268, ... to create corresponding proprietary DVD formats.

In accordance with the present invention, in this proprietary format (see page 7, beginning line 12) "Thus, an inversion of this value by data frame encoding system 20 will produce an invalid value for DVD-ROM disks and an incorrect value for DVD-R/W or DVD-RAM disks." Therefore in many respects the present system is conventional but having this inverted value, resulting in the proprietary format.

It is respectfully submitted that Sako discloses no such proprietary format nor does he even suggest same.

In pertinent part, the Examiner in rejecting Claim 1 (see Action, page 3) stated that Sako teaches a method for reading and decoding data comprising "inverting at least one selected bit of each encoded data frame to generate a plurality of data frames (col. 13, lines 27-46)." However it is respectfully submitted that in this passage referred to by the Examiner, Sako discloses no such feature. Instead this portion of Sako states (see col. 13, beginning line 26):

It should be noted that ciphering has been performed during recording in at least one of the sector forming circuit 13, scrambling circuit 14, header appendix circuit 15, ... such that a deciphering operation is required in the reproducing side circuits 114 to 119 as counterpart devices of the ciphering circuits. (Emphasis added.)

Sako further states col. 13, beginning line 47:

The deciphering by the synchronization separation circuit 1 on 4 is performed by detecting the manner of using a plurality of, for example, four different sorts of the synchronization words or the position of use of the various synchronization words and a frame structure, modified in accordance with the key information for ciphering, as explained with reference to FIGS. 14 and 15. (Emphasis added.)

Thus Sako discloses a ciphering scheme for data recording and playback. Ciphering of course conventionally requires a key, see also Sako Abstract referring to the key for ciphering and Sako FIG. 27 indicating use of the key information at terminal 218 for purposes of input to data conversion block 212. Sako enciphers the data to be recorded and deciphers the data when it is read out. As is conventional, the Sako ciphering uses an enciphering/deciphering key.

However, it is not seen why the Sako enciphering/deciphering meets present Claim 1 which, as pointed out by the Examiner, calls for “inverting at least one selected bit of each encoded data frame to generate a plurality of data frames.” Inverting a selected bit is not the same as deciphering. In fact they are clearly different. Deciphering by its nature requires a specific key and results therefore in an unpredictable output bit value for each input bit value, dependent on the key value. Otherwise the cipher of course would be transparent and useless. In contrast, Claim 1 calls for inverting “at least one selected bit”. Therefore, this is a predictable inversion (coding) and in accordance with embodiments of the present invention, is hardware dependent requiring a compatible encoding device or function in the apparatus which writes the DVDs and a compatible decoding device or function in the DVD player. Note that encoding/decoding are not identical to enciphering/deciphering. Encoding and decoding in this context convey the meaning of a standard method of representation without necessarily having any secret properties. In contrast, the enciphering/deciphering scheme of Sako implies secrecy requiring the key in order to employ same.

Unlike the security oriented system in Sako which uses the key to preserve the content secrecy, in contrast the present system is a proprietary standard which is therefore not itself secret, and which requires in certain embodiments specialized circuitry or functionality in the DVD mastering devices and players. Hence the present system is a closed system, as pointed out in the specification, requiring specialized DVDs and specialized equipment for making and playing same. There is, however, no requirement of secrecy.

Moreover, the ciphering scheme of Sako fails to meet the portion of Claim 1 calling for “inverting at least one selected bit of each encoded data frame”. As pointed out above, deciphering by its nature does not automatically invert any particular bit but would have an unpredictable effect on any particular bit, depending on the key value. Hence Sako not only fails to meet Claim 1, it also fails to make Claim 1 obvious because Sako is directed to a different approach for preserving the DVD content from misuse, compared to that of Claim 1.

Claims 2-8, dependent upon Claim 1, distinguish over Sako for at least the same reasons as does the base claim.

The Examiner cited Blixt in rejecting certain of the dependent claims. It is not seen that Blixt meets the deficiency stated above of Sako in failing to meet Claim 1. See Blixt at page 7, beginning line 29:

To prevent the use of software or other user information stored on an unauthorized copy of an original CD-ROM, according to the present invention, a manufacturer alters at least some of the synchronization and header sections on the CD-ROM. Modifying the synchronization and header sections renders certain portions of the CD-ROM difficult or impossible to rate and copy. (Emphasis added.)

However this modification disclosed by Blixt also does not meet Claim 1. The Examiner cited Blixt FIGS. 2A and pages 6 and 7. It appears that Blixt injects into the CD data low level errors so that the data subsequently is not error correctable. These injections of low level errors are infrequent throughout the CD data. Then the proprietary player, before reading the data, reads those predetermined uncorrectable sectors and if it finds them unreadable, only then is the CD allowed to be played. However there is no indication that the Blixt method includes, as called for in present Claim 1, “inverting at least one selected bit of each encoded data frame to generate a plurality of data frames.”

Hence even the combination of Blixt with Sako fails to meet Claim 1 and therefore also fails to meet any of the claims dependent upon Claim 1.

Claim 9 is directed to a method for recording data and distinguishes over Sako (and Blixt) for reasons similar to those pointed out above for Claim 1, at least because Claim 9 recites “inverting at least one selected bit and at least one of the data frame values to generate a plurality of encoded data frames.” The Examiner in rejecting Claim 9 cited, in pertinent part, Sako col. 5, lines 7-24. However it is not seen how this portion of Sako meets Claim 9, because this part of Sako is directed to the enciphering method for producing enciphered data. As discussed above in conjunction with Claim 1, enciphering does not result in the feature as recited in Claim 9 of “inverting at least one selected bit” at least because enciphering by its nature would, depending on the specific key value, either invert or not invert any particular bit. Hence enciphering is key dependent rather than being directed to “at least one selected bit”. Thus Sako fails to meet Claim 9.

For the reasons similar to those discussed above in conjunction with Claim 1, even in the addition of Blixt to Sako also fails to meet Claim 9.

The claims dependent upon Claim 9 distinguish over the references for at least the same reason as does the base claim.

Applicant added Claims 16-20. Dependent Claim 16 reads, for instance, on the specification at page 7, lines 17-23 as quoted above and recites “wherein prior to the inverting, the data has an incorrect or invalid value according to a predetermined ESMA standard.” That is, in accordance with this feature the data as recorded in one embodiment on the DVD fails to meet an ESMA standard.

It is not seen where any such feature is suggested in either Sako or Blixt or any of the other cited references. As pointed out above, Sako uses an enciphering method. It is not clear that enciphering per se would fail to meet the ECMA standard. Blixt uses the low level error injection method, however this does not pertain to any particular pre-selected bit but instead is apparently an error found anywhere in a particular sector. Again, therefore, neither of these references meets Claim 16. In addition to the allowability of Claim 16 due to its dependency on Claim 1.

Dependent Claim 17 is directed to a similar feature as Claim 16 but is dependent upon Claim 9 and similarly distinguishes over the references.

New independent Claim 18 is directed to an optical medium which is a product produced by the encoding method disclosed in the specification. Claim 18 distinguishes over the references at least because its final clause recites “at least one selected bit in the data frame is inverted so as to have an incorrect or invalid value according to a predetermined ECMA standard.” Hence Claim 18 is similar in this regard to Claim 17 and at least for the reasons discussed above similarly distinguishes over the references.

New apparatus Claims 19 and 20 are directed to systems for respectively recording data and reading data. Claim 19 reads on FIG. 1 for recording data on the optical medium 12, while Claim 20 reads on FIG. 6 for reading data from an optical medium.

Claim 19 distinguishes over the references at least because Claim 19 calls for, beginning in line 4, “a data frame encoding system having an input terminal coupled to an output terminal of the data framer and adopted to invert at least one selected bit in at least one of the data frames received from the data framer.” This part of Claim 19 reads on, for instance, block 20 in FIG. 1 and the specification at page 5, beginning line 17 and carrying over to page 6, line 5. As discussed above in conjunction with Claim 9, no such system for recording data is even suggested in the references and hence Claim 19 distinguishes thereover.

New Claim 20 is directed to “A drive for reading and decoding data from an optical medium” and reads on FIG. 6. Claim 20 distinguishes over the references at least because Claim 20 calls for, beginning in line 9, “a decoding system having an input terminal coupled to an output terminal of the recording frame reader and adopted to invert at least one selected bit in at least one frame received from the recording frame reader.” This part of Claim 20 reads on, for instance, data frame decoder 146 in FIG. 6 and similarly distinguishes over the references for reasons discussed above in conjunction with Claim 1.

CONCLUSION

In view of the above, all presently pending claims in this application are believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone interview would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this paper and any enclosures to **Deposit Account No. 03-1952** referencing docket no. 136922002400. However, the Commissioner is not authorized at this time to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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